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chain nodes : 11 19 20 22

ring nodes :

1 2 3 4 5 6 7 8 9 10 12 13 14 15 16

chain bonds :

7-11 11-13 11-22 16-19 19-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 12-13 12-16 13-14 14-15

15-16

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 4-7 \quad 5-6 \quad 5-10 \quad 7-8 \quad 7-11 \quad 8-9 \quad 9-10 \quad 11-13 \quad 11-22 \quad 12-13$

12-16 13-14 14-15 15-16 16-19 19-20

isolated ring systems :
containing 1 : 12 :

G1:H,Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 19:CLASS 20:Atom 22:CLASS

=> s 11 sam

L2 11 SEA SSS SAM L1

=> s 11 full

L3 140 SEA SSS FUL L1

=> file caplus

=> s 13

L4 8 L3

=> s 14 and pd<sept 2002

22820146 PD<SEPT 2002

(PD<20020900)

L5 1 L4 AND PD<SEPT 2002

=> dis 15 bib abs hitstr

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L5
    ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
ΑN
    2001:581843 CAPLUS Full-text
    135:180762
DN
    Preparation of nitrogen-containing compounds having kinase inhibitory
ΤI
    activity and drugs-containing the same
    Takami, Atsuya; Iijima, Hiroshi; Iwakubo, Masayuki; Okada, Yuji
ΙN
    Kirin Beer Kabushiki Kaisha, Japan
PA
SO
    PCT Int. Appl., 372 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    Japanese
FAN.CNT 1
                      KIND DATE
                                        APPLICATION NO.
                                                               DATE
    PATENT NO.
    _____
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                                         ______
                                                               _____
                       A1 20010809 WO 2001-JP721
    WO 2001056988
                                                              20010201 <--
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            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
            SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
            YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                              20010814 AU 2001-30564
    AU 2001030564
                        Α
                                                               20010201 <--
                             20021113
                                        EP 2001-902730
    EP 1256574
                        Α1
                                                               20010201
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    US 20040102437
                       A1
                             20040527
                                        US 2003-181943
                                                              20030519
    US 7217722
                       В2
                             20070515
PRAI JP 2000-24292
                       Α
                             20000201
    WO 2001-JP721
                        W
                             20010201
OS
    MARPAT 135:180762
GΙ
```

Title compds. [HetXZ; Het = monocyclic heterocycle or dicycle heterocycle having at least one nitrogen; X = NHCONHQ, NHCOQ1; Q, Q1 independently = bond, alkylene, alkenylene; Z = H halo, monocyclohydrocarbon, dicyclohydrocarbon, tricyclohydrocarbon, heterocycle], pharmaceutically acceptable salts thereof and solvates of the same are prepared as Rho kinase inhibitors. Thus, the title compound I was prepared and biol. tested for blood presure lowering effect in spontaneous hypertensive rats and diminished urine protein excretion effect in rabbits having GBM-antibody-mediated kidney disease.

IT 353553-15-8P 353554-19-5P 353554-30-0P 353554-41-3P

CN 5-Isoquinolinamine, N-[1-[(2,4,6-trifluorophenyl)methyl]-3-piperidinyl]- (CA INDEX NAME)

RN 353554-19-5 CAPLUS

CN 5-Isoquinolinamine, N-[1-[(4-fluorophenyl)methyl]-3-piperidinyl]- (CA INDEX NAME)

$$\bigcap_{NH} \operatorname{CH}_2 \longrightarrow_F$$

RN 353554-30-0 CAPLUS

CN 5-Isoquinolinamine, N-[1-[[4-(trifluoromethyl)phenyl]methyl]-3-piperidinyl]- (CA INDEX NAME)

RN 353554-41-3 CAPLUS

CN 5-Isoquinolinamine, N-[1-[(3,4-difluorophenyl)methyl]-3-piperidinyl]- (CA INDEX NAME)

$$\bigcap_{NH} \operatorname{CH}_2 \longrightarrow_F$$

RE.CNT 236 THERE ARE 236 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 14 not 15 L6 7 L4 NOT L5 => dis 16 1-7 bib abs fhitstr

L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2008:1070311 CAPLUS Full-text

DN 149:307683

TI Piperidine and pyrrolidine derivatives as cytoskeletal active Rho kinase inhibitors and their preparation, pharmaceutical compositions and use in the treatment of diseases

IN Lampe, John W.; Watson, Paul S.; Slade, David J.; Peterson, Ward M.;
 Crean, Christopher S.; Vittitow, Jason L.; DeCamp, Jonathan Bryan; Pelz,
 Nicholas F.

PA USA

SO U.S. Pat. Appl. Publ., 84pp. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

FAN.CNI Z						IZIND DAMO					3 DDI	T 0 7 FF	T 0 1 7		רא תח						
	PATENT NO.					KIND		DATE			APPLICATION NO.					DATE					
ΡI	US	20080214614				A1		2008	0904		US 2007-958214					20071217					
	WO	2008077057				A2		20080626			WO 2007-US87973						20071218				
	WO	2008	0770	57	A3			20080821													
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,			
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,			
			GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,			
			KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,			
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			PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,			
			TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW							
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			IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,			
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			BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑP,	EA,	EP,	OA								
PRAI	US	2006	-870	555P		P		2006	1218												
	US	2007	-958	214		Α		2007	1217												
\circ																					

GΙ

AΒ The invention is directed to synthetic cytoskeletal active compds. that are inhibitors of Rho-associated protein kinase and to pharmaceutical compns. comprising such compds. and a pharmaceutically acceptable carrier. The invention is addnl. directed to a method of preventing or treating diseases or conditions associated with cytoskeletal reorganization. The method treats increased intraocular pressure, such as primary open-angle glaucoma. method comprises a therapeutically effective amount of a cytoskeletal active compound of formula I, wherein said amount is effective to influence the actomyosin interactions, for example by leading to cellular relaxation and alterations in cell-substratum adhesions. Compds. of formula I wherein Q is CO, SO2 and (CR4R5)0-3; R2 is (un)substituted indazolyl and isoquinolinyl; Ar is monocyclic or bicyclic (hetero)aryl; X is Y-Z-; Y OH and derivs., NH2 and derivs., SH and derivs, SO1-2H and derivs, etc.; Z is absent; R3, R4 and R5 independently is H, (un) substituted alkyl, (un) substituted alkenyl, (un) substituted alkynyl, (un) substituted cycloalkyl, etc.; are claimed. Example compound II was prepared by deprotection of 2,2-dimethyl-1-(5-{1-[4-(methylthio)benzyl]piperidin-3-ylamino}-1H-indazol-1-yl)propan-1-one. All the invention compds. were evaluated for their ROCK2 inhibitory activity. From the assay, II exhibited an IC50 value of 65.8 nM.

IT 1035096-21-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of piperidine and pyrrolidine derivs. as cytoskeletal active Rho kinase inhibitors useful in the treatment of diseases)

RN 1035096-21-9 CAPLUS

CN 5-Isoquinolinamine, N-[1-[(4-methoxyphenyl)methyl]-3-piperidinyl]- (CF INDEX NAME)

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2008:770464 CAPLUS Full-text

DN 149:104603

TI Preparation of piperidine and pyrrolidine derivatives as cytoskeletal

active Rho kinase inhibitor compounds

IN Lampe, John W.; Watson, Paul S.; Slade, David J.; Peterson, Ward M.;
 Crean, Christopher S.; Vittitow, Jason L.; DeCamp, Jonathan Bryan; Pelz,
 Nicholas F.

PA Inspire Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 143 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

GΙ

r AN .	PATENT NO.					KIND		DATE		APPLICATION NO.						DATE			
PI			2008077057			A2 2008062 A3 2008082			WO 2007-US87973						20071218				
	WU)8077057			A3													
		W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,	
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			GB,	GD,	GE,	GH,	GM,	GΤ,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	
			ΚM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,	
			MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	
			PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	
			•			•		US,							·	·	·	·	
		RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
			IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	
			•	•		•		GΑ,			•		•	•	•			BW,	
			GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	
			BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	AP,	EA,	EP,	OA						
	US	2008	0214	614	•	A1	·	2008	0904		US 2	007-	9582	14		2	0071	217	
PRAT	US	2006	-870	555P		Р													
		2007				A		2007											
OS		RPAT						_ 0 0 /											
	1.17.71			-0-10	0.0														

The invention is directed to synthetic cytoskeletal active compds. that are inhibitors of Rho-associated protein kinase and to pharmaceutical compns. comprising such compds. and a pharmaceutically acceptable carrier. The invention is addnl. directed to a method of preventing or treating diseases or conditions associated with cytoskeletal reorganization. The method treats increased intraocular pressure, such as primary open-angle glaucoma. The method comprises a therapeutically effective amount of a cytoskeletal active compound of formula I, wherein said amount is effective to influence the actomyosin interactions, for example by leading to cellular relaxation and alterations in cell-substratum adhesions. Compds. of formula I [Q = CO, SO2 or (CR4R5)n; m = 1-3; p = 1-2; n = 0-3; R2 = (un)substituted indazolyl,

isoquinolinyl, pyridinyl, etc.; Ar = monocyclic or bicyclic aryl or heteroaryl; X = Y-Z; Y = OR8, NR8R9, SR8, SOR8, etc.; Z = absent; R3, R4 and R5 independently = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, etc.; R8 and R9 independently = H, (un)substituted alkyl, alkenyl, alkenyl, alkynyl, aryl, etc.], and their pharmaceutically acceptable salts, are prepared and disclosed. Thus, e.g., II was prepared by reductive amination of 4- (methylthio)benzaldehyde with 2,2-dimethyl-1-[5-[(piperidin-3-yl)amino]-1H-indazol-1-yl]propan-1-one (preparation given) followed by BOC-deprotection. I were evaluated for their ROCK2 inhibitory activity in Rho kinase inhibition assay. From the assay, I demonstrated the ability to inhibit ROCK2 in vitro with IC50 value of < 10 μ M, e.g., II showed IC50 of 65.8 nM.

IT 1035096-21-9P, N-[1-(4-Methoxybenzyl)piperidin-3-yl]isoquinolin-5-amine

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperidine and pyrrolidine derivs. as cytoskeletal active Rho kinase inhibitor compds.)

RN 1035096-21-9 CAPLUS

CN 5-Isoquinolinamine, N-[1-[(4-methoxyphenyl)methyl]-3-piperidinyl]- (CA INDEX NAME)

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2008:156464 CAPLUS Full-text

DN 148:206585

TI Rho/ROCK/PI3/Akt kinase inhibitors for the treatment of diseases associated with protozoan parasites

IN Mazier, Dominique; Taoufiq, Zacharie; Ciceron, Liliane; Pino, Paco

PA Universite Pierre et Marie Curie-Paris VI, Fr.

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

T. TIA • A			10			KIND DATE					7 D D T	T () T								
	PATENT NO.)	DATE		-	APPLICATION NO.						DATE			
							-													
ΡI	WO 2008015001			A1		20080207		WO 2007-EP6857						20070802						
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			GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,		
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			ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,		

GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1891958 A1 20080227 EP 2006-291263 20060803 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,

BA, HR, MK, YU

PRAI EP 2006-291263 A 20060803

AB The invention relates to the use of a Rho/ROCK/PI3K/Akt pathway modulator for the manufacture of a medicament intended for the prevention or the treatment of pathologies associated with an infection by a protozoan parasite.

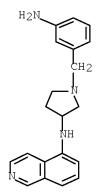
IT 675133-14-9

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Rho/ROCK/PI3/Akt kinase inhibitor for treatment of disease associated with protozoan parasite)

RN 675133-14-9 CAPLUS

CN 5-Isoquinolinamine, N-[1-[(3-aminophenyl)methyl]-3-pyrrolidinyl]- (CA INDEX NAME)



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:1331191 CAPLUS Full-text

DN 146:134606

TI Design and synthesis of rho kinase inhibitors (III)

AU Iwakubo, Masayuki; Takami, Atsuya; Okada, Yuji; Kawata, Takehisa; Tagami, Yoshimichi; Sato, Motoko; Sugiyama, Terumi; Fukushima, Kayoko; Taya, Shinichiro; Amano, Mutsuki; Kaibuchi, Kozo; Iijima, Hiroshi

CS Pharmaceutical Research Laboratories, Kirin Brewery Co. Ltd., Takasaki-shi, Gunma, 370-1295, Japan

SO Bioorganic & Medicinal Chemistry (2007), 15(2), 1022-1033 CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Ltd.

DT Journal

LA English

OS CASREACT 146:134606

GΙ

Ι

The structure-activity relationship of Rho kinase inhibitors bearing an isoquinoline scaffold was studied. N-(1-Benzyl-3-pyrrolidyl)-N-(5-isoquinolyl)amine analogs were optimized with respect to their inhibitory potencies for the enzyme and for chemotaxis. The potent analogs were further evaluated by an ex vivo test in which the selected compds. were orally administered to rats, and the Rho kinase inhibitory potency observed in the rat serum was evaluated 3 h after the administration. Compound 23g (I) showed a high level of Rho kinase inhibitory activity in the rat serum and was stable in an in vitro metabolic test using a microsomal cytochrome preparation. The (R)-isomer of 23g displayed a higher level of inhibitory potency than the (S)-isomer in a cell-free kinase assay and in the cell migration assay (ICENZ50 = 25 nM and ICMCP50 = 1 μ M). The (R)-isomer successfully inhibited the phosphorylation of MBS (myosin-binding subunit) in cells.

IT 675132-98-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(benzylpyrrolidyl isoquinolylamines as inhibitors of rho kinase and chemotaxis)

RN 675132-98-6 CAPLUS

CN 5-Isoquinolinamine, N-[1-[(2-chlorophenyl)methyl]-3-pyrrolidinyl]- (CA INDEX NAME)

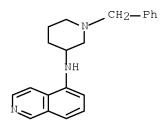
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:916848 CAPLUS Full-text

DN 142:456241

- TI Design and synthesis of Rho kinase inhibitors (I). [Erratum to document cited in CA141:046759]
- AU Takami, Atsuya; Iwakubo, Masayuki; Okada, Yuji; Kawata, Takehisa; Odai, Hideharu; Takahashi, Nobuaki; Shindo, Kazutoshi; Kimura, Kaname; Tagami, Yoshimichi; Miyake, Mika; Fukushima, Kayoko; Inagaki, Masaki; Amano, Mutsuki; Kaibuchi, Kozo; Iijima, Hiroshi
- CS Pharmaceutical Research Laboratories, Kirin Brewery Co. Ltd, Takasaki-shi, Gunma, 370-1295, Japan
- SO Bioorganic & Medicinal Chemistry (2004), 12(23), 6317 CODEN: BMECEP; ISSN: 0968-0896
- PB Elsevier Ltd.
- DT Journal
- LA English
- AB A sentence is added in the Acknowledgements section: "This work was supported by the grant from the Pharmaceuticals and Medical Devices Agency (PMDA).".
- IT 675133-21-8P
 - RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 - (design and synthesis of Rho kinase inhibitors (Erratum))
- RN 675133-21-8 CAPLUS
- CN 5-Isoquinolinamine, N-[1-(phenylmethyl)-3-piperidinyl]- (CA INDEX NAME)



- L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2004:306981 CAPLUS Full-text
- DN 141:46759
- TI Design and synthesis of Rho kinase inhibitors (I)
- AU Takami, Atsuya; Iwakubo, Masayuki; Okada, Yuji; Kawata, Takehisa; Odai, Hideharu; Takahashi, Nobuaki; Shindo, Kazutoshi; Kimura, Kaname; Tagami, Yoshimichi; Miyake, Mika; Fukushima, Kayoko; Inagaki, Masaki; Amano, Mutsuki; Kaibuchi, Kozo; Iijima, Hiroshi
- CS Pharmaceutical Research Laboratories, Kirin Brewery Co. Ltd., Gunma, Takasaki-shi, 370-1295, Japan
- SO Bioorganic & Medicinal Chemistry (2004), 12(9), 2115-2137 CODEN: BMECEP; ISSN: 0968-0896
- PB Elsevier Ltd.
- DT Journal
- LA English
- OS CASREACT 141:46759
- AB Several structurally unrelated scaffolds of the Rho kinase inhibitor were designed using pharmacophore information obtained from the results of a high-throughput screening and structural information from a homol. model of Rho kinase. A docking simulation using the ligand-binding pocket of the Rho kinase model helped to comprehensively understand and to predict the structure-activity relationship of the inhibitors. This understanding was useful for developing new Rho kinase inhibitors of higher potency and selectivity. We identified several potent platforms for developing the Rho

kinase inhibitors, namely, pyridine, 1H-indazole, isoquinoline, and phthalimide.

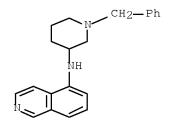
IT 675133-21-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(design and synthesis of Rho kinase inhibitors)

RN 675133-21-8 CAPLUS

CN 5-Isoquinolinamine, N-[1-(phenylmethyl)-3-piperidinyl]- (CA INDEX NAME)



RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:252504 CAPLUS <u>Full-text</u>

DN 140:287280

TI Isoquinoline derivatives having kinase inhibitory activity and drugs containing the same

IN Iwakubo, Masayuki; Okada, Yuji

PA Kirin Beer Kabushiki Kaisha, Japan

SO PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

FAN.			NO.			KIN	D			APPLICATION NO.						DATE				
ΡI	WO	2004024717												20030912						
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,		
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	GE,		
			GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,		
			LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NΙ,	NO,	NZ,		
			OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	TM,		
			TN,	TR,	TT,	${\sf TZ}$,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW				
		RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,		
			KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,		
			FΙ,	FR,	GB,	GR,	HU,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,		
			BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	$\mathrm{ML}_{m{\prime}}$	${ m MR}$,	ΝE,	SN,	TD,	ΤG		
	_	2502				A1					CA 2003-2502583									
		2003								AU 2003-264427										
	ΕP	1550				A1 200			0050706			EP 2003-7954				20030912				
		R:						ES,										PT,		
								RO,												
		1694				А					CN 2	003-	8250	97		20030912				
		1003						2008												
		2006						20060727			US 2005-527643					20051013				
PRAI						A 200209														
	WO 2003-JP11733							2003	0912											

GI

$$\bigvee_{N}\bigvee_{X}^{M}\bigvee_{Q}$$

The patent relates to the synthesis of isoquinoline derivs. which are useful in treating a disease mediated by Rho kinase because of having an Rho kinase inhibitory effect. Namely, a compound of the following general formula I, its pharmaceutically acceptable salt or a solvate thereof: wherein Q = Ph, pyridyl, pyrrolyl, thienyl or furyl optionally having one or two substituents selected from among halogens, alkyls, nitro and amino; and X = (CH2)p, p = 2 or 3. Thus, a titled compound (3R)-N5-[1-(3- aminobenzyl)tetrahydro-1H-3-pyrrolyl]-5-isoquinolineamine prepared from: an intermediate derived by reacting 5-hydroxyisoquinoline with trifluoromethanesulfonic acid anhydride; and an intermediate made by reaction of (3R)-(tert-butoxycarbonylamino)pyrrolidine and 3-nitrobenzylchloride was tested as Rho kinase inhibitor and showed IC50 of 0.023 μ M.

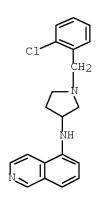
IT 675133-51-4P

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of isoquinoline derivative salts having kinase inhibitory activity)

RN 675133-51-4 CAPLUS

CN 5-Isoquinolinamine, N-[1-[(2-chlorophenyl)methyl]-3-pyrrolidinyl]-, hydrochloride (1:?) (CA INDEX NAME)



●x HCl

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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